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Ceramics MONTHLY



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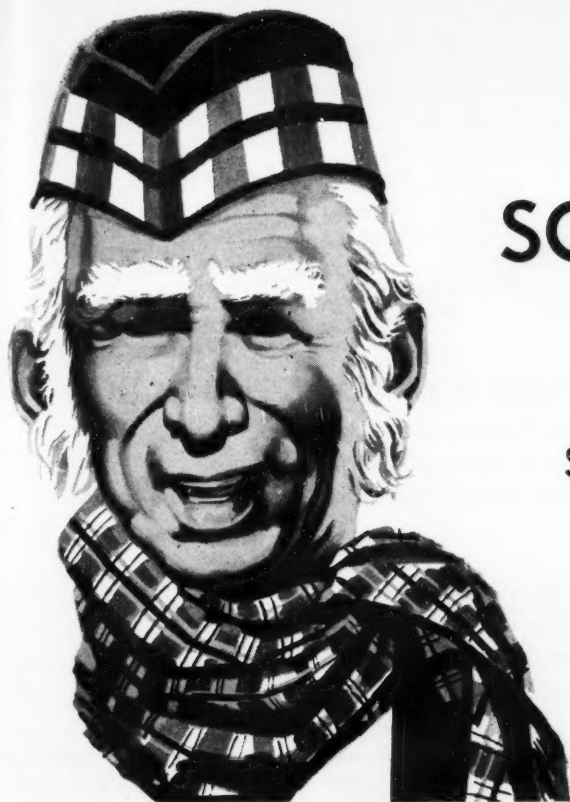
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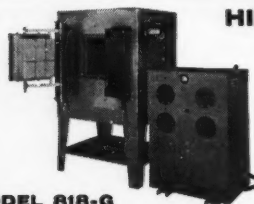
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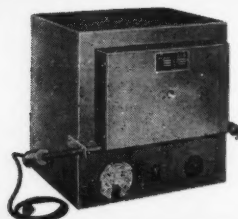
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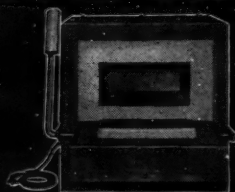
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DEALER INQUIRIES INVITED

CERAMICS MONTHLY

Ceramics MONTHLY

Volume 6, Number 2

February • 1958

50 cents per copy

in this issue of **CM**

On Our Cover: "End of the Line," a prize sculpture by Edris Eckhardt, is 10" tall and 11" long. The donkey is gray with a blue star on its head and orange-pink inside its ears, mouth and nostrils. Children are dressed in white.

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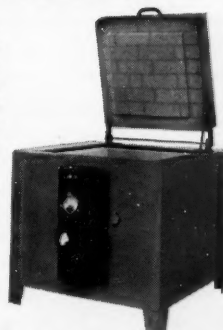


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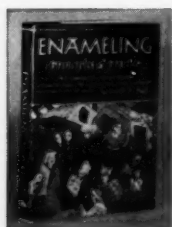
I am a Hobbyist ☐, Art Studio Owner ☐,
Public School Teacher ☐, Private Class
Teacher ☐, Occupational Therapist ☐.

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current book selection

These books on ceramics may be ordered from the CM Book Department on a money back guarantee basis. Each title has been carefully reviewed to assure you the best reading in the field of ceramics.

ENAMELING: PRINCIPLES & PRACTICE by Kenneth F. Bates



The author, who has won many prizes for his enamels, has penned a practical guide for the beginning student and an authoritative reference for the craftsman. Covers all phases of the art of enameling. Profusely illustrated, including plates in color. 208 pages. \$3.95

POTTERY MAKING by Wren and Wren

The authors, potters of Oxshott, England, cover all the basic phases of pottery making. In addition, they present information on gas kilns and building a small coke kiln. Illustrated, 140 pages. \$3.50

A POTTER'S PORTFOLIO

by Bernard Leach

An elaborate (11½" x 14" cloth-bound) edition in which Mr. Leach discusses approximately 60 examples of great pottery from the primitive to the contemporary. Full page illustrations, some of which are in color, are suitable for framing. \$17.50



THE COMPLETE BOOK OF POTTERY MAKING

by John B. Kenny

All of the most popular pottery making techniques. Step-by-step photo lessons. Clays, glazes, bodies, firing, plaster, etc. Large (7" x 10") format, 242 pages, more than 500 photos and drawings. \$7.50

A POTTER'S BOOK

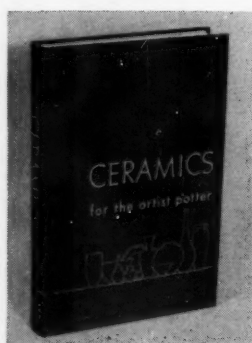
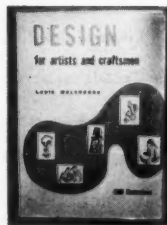
by Bernard Leach

The famed Mr. Leach's book is the outcome of 25 years work in the Far East and England. It deals with the four types of pottery: Japanese raku, English slipware, stoneware, and Oriental porcelain. Considerable basic information is between these covers as well. Illustrated, some in color, 94 pages. \$7.25



DESIGN FOR ARTISTS AND CRAFTSMEN by Louis Wolchonok

One of the best books on design, it will prove invaluable to pottery and sculpture enthusiasts as well as decorators. Geometric form, flower and plant form, bird and animal form, human form, and man-made forms are covered in careful detail. The 1280 illustrations include about 400 flower and animal motifs readily adaptable to pottery. Oversize format, 207 pages, cloth bound. \$4.95



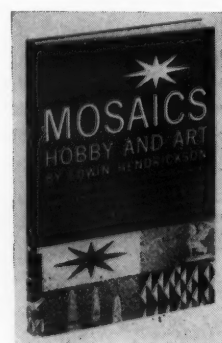
CERAMICS FOR THE ARTIST POTTER

by F. H. Norton

The most complete book on ceramics! From choosing the proper clay to putting the final touches on a piece of pottery, each operation is explained clearly and simply with photographs and diagrams. The first half of the book tells how-to-do-it; the second goes into more advanced discussions of clays, molds, glazing, etc. 320 pages, 471 illustrations, (7" x 10" format). \$7.50

MOSAICS, HOBBY AND ART

by Edwin Hendrickson



This pioneer book on mosaics features popular patterns of well-known mosaic craftsmen as well as step-by-step instruction on 12 basic projects. There is profusely-illustrated information on tesserae—how to cut, shape and use—adhesives, cements, dyes, backing and edgings best suited for mosaics. A handbook for the beginner as well as the advanced hobbyist. 111 pages. \$3.50

tions

FROM

Ceramics
MONTHLY

BOOK DEPARTMENT



MARIA: THE POTTER OF SAN ILDEFONSO

by Alice Marriott

The story of Maria Martinex, who revived the ancient Pueblo craft of pottery making and has become a legend in her own lifetime. A unique biography, skillfully told. Many

accurate drawings of actual pieces of pottery. Contains 294 pages; 25 illustrations. **\$3.75**

THE POTTER'S CRAFT

by Charles F. Binns

Written by the man who, since his death, has been called the "Father of Ceramics." The book discusses the various origins of pottery, the nature of clay-working materials and tools, and careful instructions for a variety of projects. For the amateur as well as the student. **\$3.50**

CERAMIC SCULPTURE

by John B. Kenny

This latest book by Mr. Kenny promises to be as valuable as his "Pottery Making." Mr. Kenny uses the same step-by-step pictorial technique and an identical format. Containing over a thousand photos and sketches it covers all phases of the sculptor's art from beginning essentials to advanced projects, including animals, chessmen, figures, and many others. Large format (7" x 10"), 302 pages **\$7.50**



CERAMICS BOOK

by Herbert Sanders

Complete step-by-step instructions on making specific pieces. Examples of pottery by well-known ceramists. Oversize format (8" x 11½"); 96 pages. Paper bound \$1.75; Hard bound \$3.00

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DECORATIVE DESIGNS FOR CRAFT AND HOBBY

by Frances Johnson

A designer and potter, the author presents 350 designs, many in full size, with suggestions for proper colors. Many Pennsylvania Dutch designs included. Oversize format (10" x 13") 72 pages, paper bound. **\$3.00**



DESIGN MOTIFS OF ANCIENT MEXICO

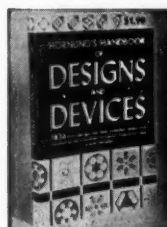
by Jorge Enciso

A compilation of 766 examples divided into geometric, natural and artificial forms. Includes designs based on flowers, birds, fish, human figures and many others. Cloth cover, 8" x 11" format, 170 pages. **\$3.95**

HANDBOOK OF DESIGNS AND DEVICES

by Clarence Hornung

Basic designs and variations include the circle, line, scroll, curvilinear, fret, shield, snow crystals, angular interlacement, and many other equally useful symbols. More than 1800 sketches are packed into 240 pages of informative text. 5" x 8" format, paper bound. **\$1.90**



CERAMICS FOR THE POTTER

by Ruth M. Home

The chemistry, geology, history of ceramics presented in non-technical language. Since the author began her study of ceramics "at the beginning," she is able to say in the preface, "Only an amateur can appreciate the problems of an amateur." **\$4.50**

CERAMIC GLAZES

by Cullen W. Parmelee

The 314 pages of technical text in this volume cover glaze making completely, beginning with a careful discussion of raw materials. In addition to the theoretical and technical contents, the text includes specific empirical formulas and batch recipes for glazes. It is an invaluable reference for advanced hobby potters, serious students, teachers and professional potters. Handsomely bound, this book contains eight pages of cross-referenced index. **\$8.00**

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by Kathleen Mann

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Letters

COMINS GETS COMPLIMENTS

Dear Editor:

... We were so glad to note that, through you, Lucia Comins is receiving the national recognition she so deeply deserves. And the December issue of CM is displayed in our showrooms with the greatest pride. ... Right now, we just want to compliment you on Anne Dye's presentation of one facet of Miss Comins' extraordinary talent.

MARION WALKER
Donya Pottery Studio
Brookfield, Conn.

Dear Editor:

I enjoyed the article on "Christmas Sculpture" by Anne Dye in your December issue. The Three Kings, by the way, made a particularly handsome cover. Lucia Comins' work interests me—it has strength and forthright honesty. Her Christmas figures are a pleasant change from the saccharine contrived trivia so commonly displayed at this time of year.

Last summer you published an article of hers on molding on stones (August 1957), and now one on tools (December 1957). I like this versatility, particularly since her approach is clearly that of an artist. Frankly, I get a little bored with the sameness of [some of your other authors]. Let's have more of *her* articles!

RUTH MORGAN
Groton, Mass.

TEACHER'S FRIEND

Dear Editor:

... I wrote you a fan letter the last time I renewed (my subscription to CM). Please consider this the same. I still think your magazine the finest ever. I've used it in my work as an occupational therapist, for private instruction in my own studio, and as a teaching aid in an "in service" credit course I teach in ceramics at our local museum plus for that extra nudge I sometimes need in my own personal work.

Thanks so very much for doing an excellent job.

ALICE MCCOBB, O. T.
U.S.P.H. Hospital, Manhattan Beach
Brooklyn, N. Y.

MORE ON GLAZES, PLEASE

Dear Editor:

I have been waiting for further articles on glazes which can be used between cones 4 and 6, the maximum to which my kiln can be fired. The article Ball did on Albany slip glazes, G.S. matt and Tizzie white glaze has literally been my bible. I also found his suggestions on engobes very helpful. ...

ELEANOR HELLER
Kerhonkson, N. Y.

FLIGHT OF IMAGINATION

Dear Editor:

... May I express myself regarding the article entitled "A Modern Representation of the Creche" in your December issue? The photography is excellent, the thought sweet, but it is from such flights of imagination that the layman thinks the artist a little balmy. The forms are de-

finitely pots set in the form of a traditional creche. Why not name it so?
LUCIA COMINS
Wassaic, N. Y.

CM GOES TO SCHOOL

Dear Editor:

I have been very pleased with my own personal subscription to your fine magazine and, as a result, I have made it an alternate choice for a *required text* in my major art class in ceramics. ...

All of our ceramic students are art majors and within a year they will be certified art teachers.

DAVID E. CRESPI
New Haven State Teachers College
New Haven, Conn.

AD LIBS FROM READERS

"Kathe Berl's articles on copper enameling are most helpful. She is a marvelous instructor."

C. E. S.
Los Angeles, Calif.

"How about some articles on the fundamentals of body and glaze composition?"

Mrs. M. E.
Appleton, Wis.

"Why don't you print more articles on the ceramic chemistry of glazes and bodies for the studio potter; also metals, other than copper and silver, which can be used in enameling. ... ?"

L. G. K.
Sacramento, Calif.

♦ See Kathe Berl's article, "Metals other than Copper", May, 1957. —Ed.

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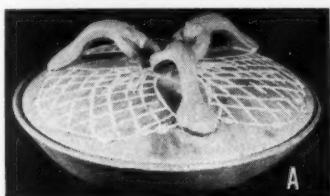
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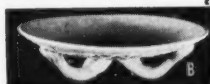


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B—shows how lobster handles may be used as feet on inverted casserole cover.

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WRITE TO

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CM's Pic of the Month: This stoneware covered jar by Robert Turner of Alfred Station, N.Y., received the second prize in ceramics at the Tenth National Decorative-Arts-Ceramic Exhibition of the Wichita (Kansas) Art Association in 1955. The jar, 9" tall and 7½" wide, now is in a private collection. It is decorated with Ware gray glaze with a brushing of "copper reduction red" glaze.

Suggestions

from our readers

Sheeting for Props

Often I get customers who do not know how to prop up the edges of free-form or rolled shapes when making ash trays, etc. Generally, as pictured in books, this is done with small balls of clay. However, I usually advise the following method. It is very easy and gives an *even* lift to the pieces.

Take a soft cloth, such as old sheeting, and twist it into a roll. The size of the roll will depend upon the height wanted for the edge. Then slide the roll under the edge



of the piece and drape it around the base until you obtain the desired shape. I usually twist it rather loosely. If cloth is not at hand, paper towels, slightly dampened, also do a nice job.

—Peg Townsend, Tucson, Ariz.

For Perfect Color Matches

For a raised effect when enameling on copper, it is easier to use small mounds of ground enamel of the desired color in place of lumps. This makes it possible to match the colors perfectly. However, you will find you cannot fire these mounds as long as the lumps as they melt faster and will flow and level out.

—Madeline R. Carothers, Cleveland, Ohio

Portable Pyrometer

A portable pyrometer is a good investment, especially if you have more than one kiln, because it can be made to serve *any* number of kilns. Merely solder an alligator clip to the end of each of the wire leads. The pyrometer then



may be clipped to the thermocouple of any kiln to get its temperature reading.

Incidentally, it is a good idea to have a thermocouple for each kiln. By leaving it in the kiln permanently, thermocouples will enjoy a longer life than if repeatedly stuck in and out of kilns, being subjected to rapid changes of temperature.

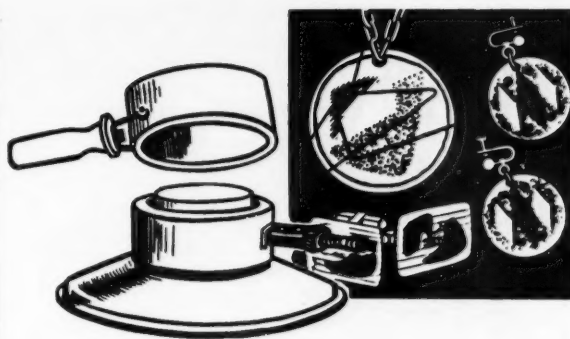
—Lee and Irving Levy, Levittown, N.Y.

For Better Flowers

Having enjoyed the Bea Matney article on flower jewelry (Nov. 1957), I have a few ideas which might cure some of the common ailments.

Buy a cheap remnant of oilcloth and roll the flower clay on the canvas side. This gives a rough texture to the little base which helps the cement hold the findings securely. Also no spatula is needed to remove petals and

(More Suggestions on page 29)



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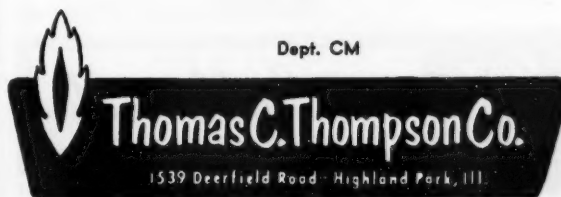
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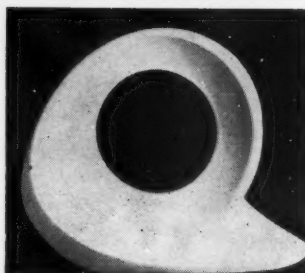
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Q *Answers to* Questions

Conducted by the CM Technical Staff

Q Where can Albany slip clay be obtained?

The old Albany slip clay is no longer obtainable. Sadler clay, mined by United Clay Mines of Trenton, N.J., is similar to Albany slip clay except it requires a cone or two higher heat. Large ceramic supply houses frequently send Sadler clay automatically when Albany slip clay is ordered. Sadler clay is river silt from the Hudson River near Albany, N.Y. Many river silts act in a way similar to this slip clay.—F. CARLTON BALL

Q Is the white glaze in powder form that is used for dry dusting the same as the clear glaze powder that is used for mending?

No. White glaze is dusted over dry painted color to achieve a high gloss. The clear glaze is mixed with china painting medium and is applied thinly to mend small chipped places on glazed ware. The properties and uses of the two are entirely different. Each is fired at regular china firing temperature.—ZENA HOLST

Q Where is it possible to get an armature material that burns out when a piece of sculpture is in the kiln? I have often heard that such material exists, but I haven't the slightest idea of its name or where it can be purchased.

Combustible material such as you describe can be sawdust or moth flakes or others. These are mixed with the dry clay; or wedged into plastic clay, before the piece is formed. They burn out in the kiln. However, these materials do not take the place of an armature. Many ceramics books on pottery and sculpture describe different types of armatures. For example, you can use a sand bag and, after the sculpture has become leather-hard, puncture the bag to let the sand out. It really is best to build ceramic sculpture hollow, such as with heavy coils of clay or with a web-type of inner structure, so the entire piece can be fired.—KEN SMITH

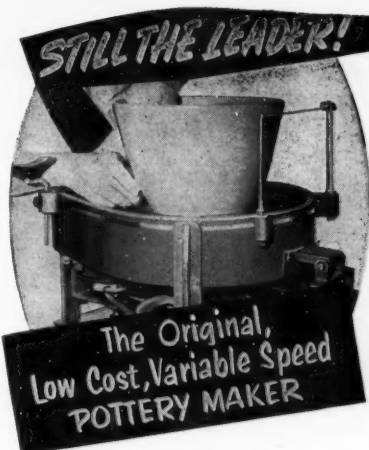
Q Could you tell me where I can get clay in plastic bags which would be suitable for physical therapy—hand exercises for paralyzed fingers, etc?

You probably will find plastilene or some similar material more helpful to you than clay. Plastilene can be packaged in plastic bags and it will retain its plasticity where clay would dry out in time.—CM STAFF

Q Can a reduction firing be done in an electric kiln without injury to the element? How long does one go about producing a reducing atmosphere in an electric kiln? When, and for how long, should this reduction take place? Must one use specific glazes or is any glaze enhanced by reduction? And, is a reduction glaze considered more beautiful?

Reduction firing cannot be done well in an electric kiln. To reduce, it is necessary to produce smoke and car-

(Continued on page 27)



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Eckhardt.....

TEACHING TECHNIQUES

In her new series of articles, Edris Eckhardt draws upon her vast background and teaching experience to bring to CM readers the successful pottery and sculpture techniques which she has developed through the years. Beginning this month, Miss Eckhardt explains her philosophy of teaching in the ceramic area and the basic materials and equipment needed for working with clay. Her ideas are applicable to children as young as four as well as to octogenarians. Whether you are a teacher, student or hobbyist, we are sure you will enjoy "studying" under this famous sculptor and teacher.—Ed.

TO ME, TEACHING is a most rewarding art experience. The satisfied look on the face of a student is more gratifying to me than winning the top prize in a big art show. But successful teaching isn't easy. You may develop some techniques that work beautifully with one or more groups, only to find that a new class doesn't respond to them. This points up a major axiom: Always be alert and learn to know the students as *individuals* as quickly as possible.

Although some teachers take a rather firm and forceful approach with a class, I prefer a more subtle method. For example, I do not like to lay down rules and regulations on what good taste is, stress behavior or state what will be made in my class. If a student has been exposed to *bad taste* all his life, you can't hope to wipe it out simply by saying, "This is bad and we won't have any of that here." That's not teaching; it's dictatorship! There are many ways of getting your ideas across without coercion. Teaching is encouraging individual growth, understanding and appreciation, rather than just producing a product.

A teacher must work constantly—every class minute—if he is to make full use of the class time. And he must use every device available (and make up many of his own) to serve as teaching aids.

Although teaching is a deep personal experience between student and teacher, there are many generalizations which will hold in most situations. And some practices of one teacher can be adapted to other classroom situations.

It is important to distinguish teaching methods for various age levels. The younger the age group, the shorter and more simple the demonstration should be. When

working with small children, the teacher should wear friendly, informal clothes and maintain a friendly, informal voice and facial expression. I keep detail to a minimum to avoid influencing their choice of subjects. With older students, I go into more lengthy discussions and demonstrations and also research.

By *research*, I mean either picture material or other reference material which is related to the subject. Looking at another piece of sculpture always is a good idea. I encourage anything that urges people to *see* and to *grow*. The fact that they might copy another pot or piece of sculpture doesn't concern me. Once a thing is understood thoroughly by seeing or reading, it is impossible for a person to *copy* because they put something of themselves into what they are doing. The job of the teacher is to help hook up the feelings and emotions of the individual to what he sees. The big, important things must be seen first.

My methods have quite a flexible age range. I have used them with children as young as four, and with people as old as 80. I think, though, that we have to learn to distinguish between the perfection that you expect from a finished art-school student or college student, and the expressive, rather rough but very creative, results of children.

At age six, children are highly imaginative. They do not want a very long demonstration. About 10 minutes is all they will sit through before they want to work with the clay themselves. From ages six through nine, demonstrations have to be short and sweet. I encourage questions while I demonstrate; they create active participation all the way.

For research material, I have pictures either hung up on the wall or arranged in stacks that the students can leaf through. I am not too obvious or heavy-handed about introducing research. Sometimes, in the summer, we go out to the zoo to look at the animals. While we are there, we talk about their textures and forms and the way they move. In the winter, we may rely on books for our research; or we might visit the art museum to see how other artists have expressed animals. By *other* artists, I mean not only our contemporary artists, but

also the Chinese, for example, or the Eskimo. We observe how they carved an animal and try to discover what these people were looking for; in other words, to learn to see the essentials.

In using pictures, I usually have quite a file or portfolio of them wherever I teach. They are just in a stack, and are "dog-eared" from frequent use. My students don't ask permission to look through the stack. They just get up from their seats and leaf through it.

Sometimes, after I give a demonstration, I see that look in a child's eye that says, "I don't know what I should do." If a child has a new kitten or puppy or something else he is terribly excited about, he knows immediately what he is going to do. But they are not all that way. About half of them think, "Well, gee, what am I going to do now?"

So they leaf through these pictures until, finally, something hits them. They won't do that particular picture; but it will give them a spring-board, motivation or inspiration (whatever you want to call it) to have an art experience. My file consists of pictures of works by famous sculptors, pictures of modern things, pictures that are quite detailed, pictures that are very simple, and things that are cute or whimsical (although I shy away from what I call "greeting-card art" because I try to encourage better taste and judgment from the very beginning).

The file is designed to be used. It should not be regarded as a precious thing. The children should not be afraid to thumb through it. That is why I have pictures rather than books, because a good book cannot be handled with hands covered with clay. Some of my photos are so gobbled up that now and then I have to sponge them off. I always try to get *good* material for my file. If I know a sculpture is really bad, it is not in the group, even if it is a *sculpture*. I have heads and animals and people doing things—maybe nice photographs of people at the beach. There might be pictures from newspapers, zoo pictures, or photographs of animals that I have taken myself. However, all my material is simple, clear and instructive.

I usually try to have a back, side and front view of all animals so my students can get what I call the *bulk* of the creature. For example, a tiger looks like a very huge animal when seen from the side. But, if you look at it from the back or front, it is a pretty lean animal. This must be known before you can make a tiger, yet you can't see the tiger's leanness from the side-view picture. I also try to get a top view of each animal, as well as pictures of it lying down or moving.

And that brings us to the point that anyone, child or adult, who wants to do a work of art not only has to know what a thing looks like, but he also must know how it differs from any other thing that is similar. For instance, what is the difference between the cow and the horse? The differences lie in how an animal holds its head, how it uses its legs, whether it is a foot walker or

a toe walker. The bear, for example, has an entirely different kind of sit and walk than the horse because the bear walks on his entire foot, whereas the horse walks on one toe.

Modeling is kept simple to the point of crudity at first, as recognition of large forms without detail is basic to this technique. Keep the basic shape in mind. Avoid too much polishing and finishing. A form can lose spontaneity and life by overwork. It can become boring and cluttered. Remember to work for a *strong simple statement*.

Our art today leaves a great deal of leeway for free expression. Different people see different things about a given subject. At professional levels, for instance, you can think of sculptures which have taken top awards where you can barely identify the kind of animal portrayed. You might be able to say it is a grazing animal or, perhaps, just a four-footed creature in the animal kingdom. It might be just an impression of an animal. However, the one thing I do stress is this: If you are going to do detail—ears, nose, eyes etc.—and be quite accurate, then the entire piece should be accurate all the way through, not just in part. The piece must be *consistent* throughout in detail and form. However, I always point out to my students—adults and children alike—that no matter how hard they work, they can't produce a flesh-and-blood horse. There is no use trying.

Another thing a teacher must know is that each art medium is different and has different properties. You must have a respect for the medium itself. We shouldn't

"At age six, children are highly imaginative. They do not want a very long demonstration. About 10 minutes is all they will sit through . . . they want to work with the clay themselves."

expect to do as much detail on a ceramic as we would on a drawing. We must stay within the limitations of the material itself. Learn to know and love the plastic quality of clay. For instance, you may have to sculpture thin-legged things a little thicker in the legs than they actually are in order for them to be good ceramic. Or, in order to be good ceramic, it might be necessary for you to make the legs shorter than they are. That is why, in this series of demonstrations, I will use very soft clay so you can learn about the properties of soft clay and its malleability. I think it is important to stress modeling projects where the clay must bend, and where the student *adds* to it. The other concept of using clay for sculpture is *taking away* the clay from solid blocks, as in carving. I believe that it is very important—whether the object is a figure or an animal or a pottery dish—to be able to approach it from the modeling, or the soft and malleable state, to the leather-hard, carved, or subtracted state. I find that students divide into two classes. As a rule, men and boys prefer to carve rather than model. On the other hand, girls like to model better than they like to do carved projects. In other words, girls like to use their fingers to push and pull and add

(Please turn the page)

Eckhardt.....

to the clay; while a man takes a structural attitude toward it almost from the beginning. They are the builders.

Encourage your students (or yourself) to fearlessly stress what they (or you) see and feel about an object. Learn to respect this right in yourself and others. In order to tell a story, you might exaggerate by making a donkey's ears longer than they really are. I am speaking about the language of exaggeration that all artists use. I always mention this to my classes—even to the

"In criticizing a child's work, I find the good things about it first because . . . most students are as confused about the strong points as they are about the weak ones."

five and six-year-olds. But, of course, they know what I'm talking about. Perhaps it is unnecessary to tell them because, until they are about nine or 10 years old, children just naturally exaggerate the things that impress them. But, on the other hand, with adults—people in their middle years and even college students—I have to work very hard to get them to recognize the importance of the language of exaggeration.

In teaching, it is important that you discover the personality of each of your students. Children vary a great deal. Some children, if you touch their work to change it or criticize it, won't go back to it. They are through with it. They are offended and they start something new. They consider their work entirely their own result. They are having an experience between the clay and themselves and they *resent interference*. There will be other children in the same class that, if you don't come over and say or do something about their work, will feel neglected and give up.

In criticizing a child's work, I find the good things about it first because I have discovered that most students are as confused about the strong points as they are about the weak ones, especially in the beginning stage. So I say—this part is good . . . this is strong . . . this is sculptural . . . and this has a great deal of feeling to it. Then I slide into—if you want to enhance this feeling, you might simplify it here or strengthen it there. That is the kind of *positive* criticism I like to give.

And, I watch the child's face. Usually I do it by saying words, such as *simplifying*. But if a child says, "Well, I just can't get the ear on. It keeps dropping off;" then I show him how I weld the clay together so the ear does not drop off.

I get to know the student. In order to do this, I prefer to have my groups small—no more than 25. Small groups also permit the child to get physically close to the demonstration and establish a friendly, personal relationship with the teacher. The dependent child

wants a lot of help and wants to ask a lot of questions. You get to know whether these questions are necessary or whether they are merely attention getters; and you have to learn how to deal with them. Sometimes I get all the work together. Then we sit in a circle and discuss the *interesting* things about each piece. Such group discussion teaches a child how to analyse and appreciate his own efforts and those of others.

To help younger children select a subject, I usually include a number of drawings in my demonstration. I try to get them to see that any animal—prehistoric animals, bears, apes, horses, foxes, cats, dogs, etc.—can evolve from a particular project and working technique. However, every once in awhile, you will find a little boy or girl who, after you have demonstrated a four-legged standing animal, will make a turtle. This

isn't exactly the problem and the technique that is used for a standing animal isn't suitable for a turtle. Nevertheless, if he is set on making a turtle, I usually help

him individually to make one. If you ask him, you probably will find that he has just acquired a turtle for a pet.

Because it is very important for the artist (young or old) to express the things that interest him at the time, I never try to impose my own interests on my students. Respect the *individual* in an art class, and remember that we all have uncreative days. It is a thrilling experience to form with one's own hands an object that embodies one's ideas and emotional experiences. It is the ultimate in satisfaction to have this self expression recognized.

Another important thing for a clay-working class to have is a room that the students feel is a workshop rather than a classroom. By that I mean they must feel free to move about. They just can't sit in one seat. They might wish to stand up while working instead of sitting down all the time. During some phases of their work, they might want to get down on their knees to look up at it. They should feel free to be able to do it. Newspapers put across the desk and around the floor will save a great deal of cleaning, and will allow the students to get a little messy and untidy if they need to while working fast.

At this point, I feel I must mention something about minimum equipment. I think it should be kept as simple and inexpensive as possible. A helpful hint for teachers who are over anxious about how much modern equipment is necessary for teaching ceramics is this: Remember that our primitive ancestors worked with no commercial tools at all. I usually tell my students to bring a dull lead pencil which is very good for engraving and drawing on clay, a piece of broken hack-saw blade, a nail file which is the very best thing for cutting clay (I use it in my own work), and perhaps a wire-end modeling tool which might be just a loop of wire fastened to a stick by means of a thinner wire wrapped around it.

Some inexpensive equipment for the workshop

should include a cutting wire for carving or cutting clay. This is especially handy for cutting up a big bag of clay quickly. It is made by attaching two pieces of half-inch dowel to an end of a 12-inch piece of nylon cord, such as fishing leader. The dowels, of course, are used as handles.

Pointed tools are necessary too, for a variety of processes such as incising designs on pottery or doing sgraffito decorations—scratching designs through slip. Such a tool can be made from a 3/8-inch wooden dowel, about six inches long, with a nail inserted into one end. However, you also can buy a sgraffito tool which can be stuck in the end of an old-fashioned pen holder. These are quite inexpensive. An old-fashioned lead pencil also does a good job.

Another useful thing is an elephant-ear sponge, or potter's sponge. This is a flat, thin, fine-grained natural sponge. It is similar in shape to an elephant's ear. I believe in always using a natural sponge since the cellulose sponges usually tear up the clay and wear out very easily. I don't think they are worth the money. However, you can't beat a moist cotton glove on your working hand for polishing edges and rough spots easily and quickly.

The workshop also must have a wedging board of some kind. I never use plaster for wedging clay because the plaster, when it gets old, sometimes lodges in the clay and causes considerable trouble. To make a wedging board, I cover a wooden board (a baking or drawing board) with canvas. This can be moistened if I need more water in the clay. If the clay is just right, I use it dry. Such a wedging board is inexpensive to make and can be carried easily from place to place. One also can

cover a table top with canvas if there is room for a permanent place to wedge clay.

When it comes to more expensive equipment, a kiln is necessary if you are going to do the firing. But much satisfactory work is done, particularly at the lower age levels, where children just make the clay object. At these ages, they will keep their work for about a week, and after that they are not too interested in the piece. Their interests shift to something else. It is the older child and adult who wishes to preserve his work indefinitely. So, for the first three grades, perhaps it is just enough to have the experience of actually making a three-dimensional form without firing it if you don't have a kiln. But, if you can, fire and glaze by all means!

There are so many inexpensive electric kilns on the market that surely almost any school could afford such a small kiln. It is worth the expense just for the delight you have of seeing the clay turn into a very permanent—perhaps the most permanent material known to man—fired clay.

Turn tables and other special tools and special equipment are not necessary. If you want a little turn table, it can be made easily from a tin can, and you can turn the can instead of your work. Usually, I ask my students to bring a small work board, about five or six inches square, or a little larger. They work on these boards which are very useful when the clay is put away at the end of the session. These boards should be treated with either wax or oil to keep them from warping and also to prevent them from drying out the clay. Some of the new plastic materials, or anything that

(Continued on page 34)



MEET THE AUTHOR

Edris Eckhardt, long a contributor to *CM*, is a well-known Cleveland sculptor and teacher. She has won 26 awards in national shows and other exhibits for her ceramic and gold-glass sculpture. Her work is represented in the permanent collections of five museums as well as those of numerous schools, libraries and private collectors. She teaches at the Cleveland Institute of Art, Cleveland College and Western Reserve University, and also appears frequently on television.

In 1955, Miss Eckhardt rediscovered the ancient art of making gold glass, a process which had been lost for more than fifteen hundred years. She refined the process until she was able to produce translucent sculpture in which the color of the glass comes through gold or silver foil. Built up of 10 or more layers of paper-thin sheets of glass with intervening layers of drawings on thin gold or silver, Miss Eckhardt's pieces are fired many times until the layers fuse into a solid between 1/8 and 1/4-inch thick. Her pieces are radiant and have a strong three-dimensional effect.

She has been invited to show her three-dimensional gold-glass sculpture at the Brussels (Belgium) World's Fair which will be held later this year.

In March, Miss Eckhardt has been invited to show 12 pieces of gold glass sculpture at the "Religious Art of the Western World" exhibit at the Dallas (Texas) Museum of Fine Arts.

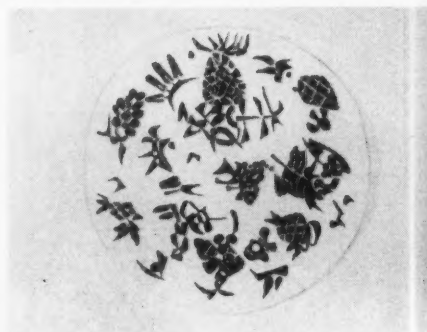
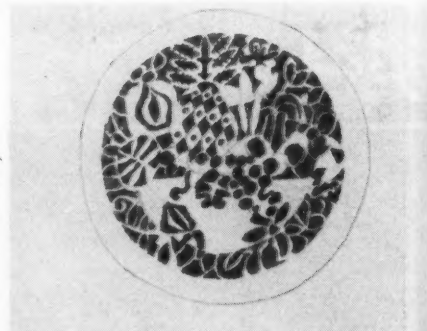
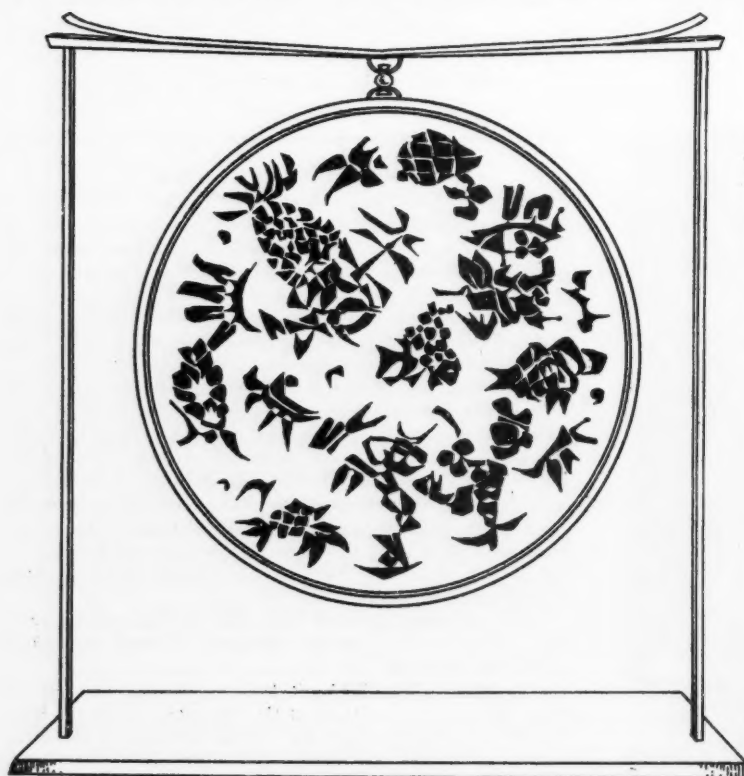
ENAMELING TECHNIQUES

by KENNETH F. BATES



"NAVAJO LADY," is an example of plique-a-jour enamel on copper screening. Ruby, blue and gold are combined with flux in this 10"x10" framed window picture.

Glowing, transparent enamels—suspended without backing in small openings in metal—give the effect of miniature stained-glass windows



SKETCH shows detail of swivel-joint mounting, allowing picture to be viewed from both sides. Plaques at right are suitable for such framing.

PLIQUE-A-JOUR (part 2)

Last month, Mr. Bates outlined the sawed-out method for making plique-a-jour. Now he describes several additional ways to incorporate this technique. In previous articles on enameling, he recommended basic procedures (May 1957) and described his technique for doing cloisonné (June-July 1957). In forthcoming articles, Mr. Bates will discuss his technique for doing *champlevé*.—Ed.

INSTEAD OF CREATING the filigree by sawing holes in a piece of metal, as was discussed in the foregoing article, it is quite possible and sometimes more practical merely to lay a network of fine-silver or gold cloisonné wire (30-gauge wide by 18-gauge high) on a sheet of mica. This network in turn is framed by a single strip of heavier gauge silver. Concentrated gum tragacanth solution holds the wires in place. They also may be soldered to the frame first with hard IT solder for a more secure job. The enamel can be placed in the openings in exactly the same way as in the pierced method of doing plique-a-jour.

Without the precaution of soldering there is little danger of the wires coming apart because they are surrounded with enamel on both sides. The "wire" type of plique-a-jour has only the disadvantage of being slightly less strong than the pierced type. A combination of both techniques, the wire and sawed method, or—small wires held within pierced or sawed-out openings—can be a most successful arrangement.

Curved Surface

It has been assumed that the piece being worked on is a flat shape. Doing a curved surface in the plique-a-jour technique is more involved. A duplicate of the shape, formed or spun of fairly heavy metal, is required. This serves as a mold which fits closely inside the outer shape. The mold's surface may be enameled thinly and have small pieces of mica fired into it; or the mica may be held in place with thick gum solution. (Herbert Maryon, in his book "Metalwork and Enameling," speaks of a metal to which enamel will not stick—namely aluminum-bronze. The inner shell could be made of such a metal and when its support is no longer needed, the work could be removed by lightly tapping the mold.)

The pierced shell which is to receive the enamel is placed over the mold and the enameling process proceeds as usual from there. The mold is left

in place during firing and then removed when the plique-a-jour is cool. It is possible to use the wire method also in this way.

Copper Screening

There is another method for plique-a-jour which might be considered as more flexible because it allows for making the windows or openings any size desired. This combines the pierced method with copper window screening or copper-wire mesh.

After enameling the pierced metal on the front side, counterenamel in the usual manner. Place it, counterenamel-side down, on a sheet of copper screening (avoid bronze or steel-wire mesh) and fire. The screening will attach to the enameled surface and you will have large openings backed with small square holes of the screening. Fill the holes in the screening with enamel and fire on mica. (You will find the wire mesh not too conspicuous when viewed at a short distance.)

Temporary Copper Backing

Still another method of doing plique-a-jour is sometimes employed when a more elaborate form is required. First, a shape is made up of thin sheet copper. Then wires—and these must be of gold, which is not af-

fected by nitric acid—are fastened in place on the copper with heavy gum solution. The cloissons thus formed are filled with enamel in the usual way. After the firings have been completed, the copper backing is removed by immersing in a dilute solution of nitric acid (about 1-part nitric acid to 2-parts water). Before immersing the piece, cover all parts except the copper with asphaltum varnish. Take the piece from the acid as soon as the copper is completely dissolved and remove the asphaltum with turpentine. The gold wires and the enamel will not show any effects from the acid, but we know that nitric acid eats copper in a very short time.

The plique-a-jour technique is one of the most elaborate of the enameling techniques. It has not been developed to any great extent in this country, except possibly in the realm of jewelry. This is due largely to the limitation of size in regard to the pierced holes. However, the larger areas of color obtainable by the copper-wire screening method, described above, offers unlimited possibilities for the contemporary craftsman. Here, as in other experiments with old techniques, the field is wide open for the contemporary artist to apply new directions and original conceptions of design. ●



"PAPILLON," a prize-winning plique-a-jour by the author.



CELADONS at CONE 04

Lovely colors formerly believed possible only at high temperatures now can be obtained at cone 04.

Here are details and recipes.

by TOM SELLERS

THE PRESENCE OF IRON in a glaze, fired under ordinary (oxidizing) conditions, will produce colors ranging from light yellow, through red-brown and brown, to what appears to be black. The color varies according to the glaze composition and the amount of colorant introduced.

When iron is present in its ferrous or reduced state, this range of colors is extended to include light green, yellow-green, blue-green, and dark green. These latter colors constitute the range of iron glazes known as the *celadons*. The name is derived from a character, named Celadon, in a 17th century French play. He wore a green costume of a hue typical of some of the glazes colored by ferrous iron.

Celadon glazes probably were produced first in China, where potters of the T'ang dynasty attempted to translate the feeling of jade into their glazes. It wasn't until the end of that period, and in the following Sung dynasty, that the best celadons were produced. Since the clay body the Chinese used was highly refractory—a porcelainous stoneware—and since

the body and glazes were fired at the same time, the glaze also had to be refractory. A local feldspathic rock, *petunse*, rich in iron impurities, was used in the glaze.

The result was a creamy thick glaze of a soft green color. When it was discovered that the iron-bearing clay in the glaze was responsible for this desirable green color, it was adopted as a necessary part of the glaze formula.

More than 70 varieties of celadon glazes were produced in the Sung period. Most were green or bluish-green in color, translucently heavy due to minute bubbles in the glaze, and with a soft waxy quality that appealed to the touch as well as the eye.

Celadon glazes generally are considered to be available only at high temperatures. But these colors also *can* be produced at low-fire temperatures. While they don't have the thick body and full waxy characteristics of their high-fire counterparts, these glazes still retain the typical reserved subtle color and texture of the Chinese celadons.

In reduction, oxygen is taken away from the metal oxide—in this case, iron. One way this is done is through

a reducing atmosphere in the kiln. In other words, the air in the kiln (containing oxygen, of course) is replaced with a gas or smoke free of oxygen.

The reduction process used for the low-fire celadons is called *local* reduction. Developed by Arthur Baggs and Edgar Littlefield at The Ohio State University, it involves introducing a reducing agent, silicon carbide, *into the glaze*, rather than the air in the kiln. Local reduction is an easier method: It gives the potter more control over his ware; and allows him to fire both oxidation and reduction glazes in the same kiln load.

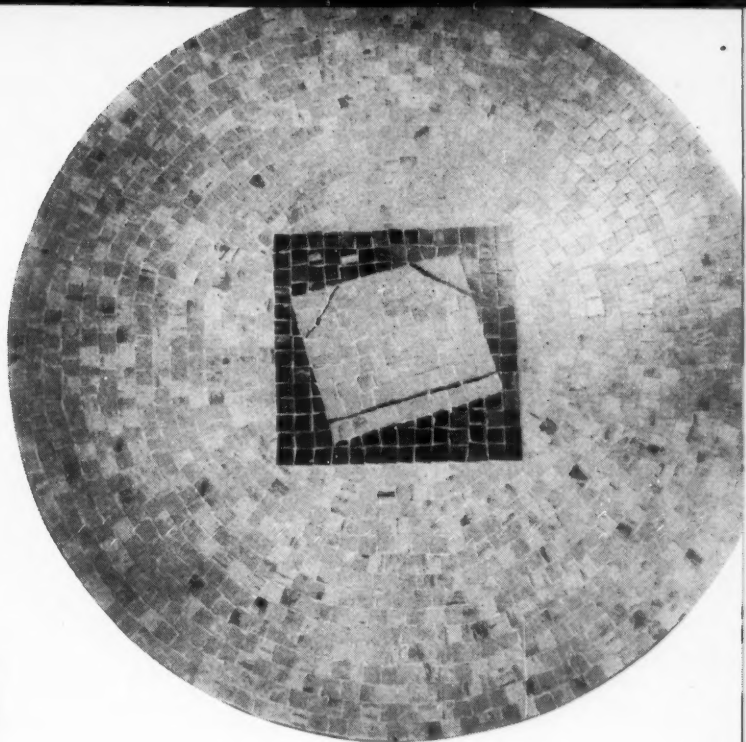
The glazes used here mature at cone 04, and are fluid so that carbon gases formed may escape. The presence of some lead in the glaze appears to be necessary to produce the celadon colors. And a long firing time, ranging from eight hours to as long as 20 hours, seems to produce the best colors.

The clay body can be either white or near-white. Or, you can use a red-firing body covered with a white engobe. The glazes, which range from transparent to semi-opaque, must

(Continued on page 24)

much ado about mosaics

by JEANNE SMITH



MOSAIC FEVER is spreading just about as fast as the flu, but it's lots more fun to catch. Articles made from mosaic tiles are not only beautiful, but they also are strong, durable, and resistant to moisture and stains. Design-wise, the possibilities are endless since a single design may be interpreted in a variety of ways. These small bits of colored tile also lend themselves to hundreds of ideas, ranging from tiny insets in clay or wood, to table tops and huge murals.

The tiles themselves are available commercially from most local ceramic supply shops in a wide variety of colors and color combinations. And, of course, you can make your own. This procedure is recommended if you wish to duplicate a special color

or make a design which calls for tile of specific shapes.

The process for making the tiles is not difficult, and you will find that putting them together to form a useful and colorful object is equally simple. Just follow the step-by-step instructions below and you, too, will soon find you have mosaic fever.

MAKING THE TILES

Roll out a slab of clay and allow it to reach the *advanced leather-hard* stage. Then use a ruler or other straight edge to guide you as you cut the tiles. If the clay is too soft, you will get distorted pieces with rough edges as you pull the knife through. If you wish to make a variety of angular shapes, first cut a series of

strips, then cut these into smaller pieces.

Brushing glaze on hundreds of tiny tiles is tedious, and spraying is virtually impossible, so dipping the tiles is advisable. The tiles should be thoroughly dry and preferably bisque fired. You will find that the glaze will build up more quickly on soft bisque than on green ware.

Be sure to test the glazes you plan to use. Textured glazes especially sometimes take on an entirely different effect when fired on a flat piece instead of on the vertical sides of vases and bowls.

With practice you will be able to dip the tiles so only the top surface is glazed, and the sides remain clean. Should glaze run down the sides, wipe it off immediately.

After the tiles are dipped in glaze, set them on a thin slab of fire-brick immediately. These slabs, filled with mosaics, can then be loaded in the kiln without further handling of the tiny tiles. Be sure to set the tiles far enough (about $\frac{1}{4}$ -inch) apart, so they will not touch.

ASSEMBLING THE TABLE

Using a *design-as-you-go* approach, building from the outside in is the best method. It assures a straight outside edge. Watch the spacing between

(Continued on page 28)



MOSAIC TABLES, like this one are strong, durable, moisture and stain resistant — and beautiful. And the design possibilities are exciting and limitless.

CENTERPIECES the easy way

by BETSE LEWIS

ALTHOUGH not a *piece de resistance* itself, this ceramic project is a boon because of its "hidden talents." It's designed especially for frustrated centerpiece arrangers—those people who struggle and juggle, striving to combine flowers and candles successfully.

The holders shown on these pages are merely basic ideas, one allowing for more flexibility than the other. As you work, you will discover many variations and ways to make this general idea fit into your own plans. But here are two to get you started.

The first is a simple, rather typical-type "frog," except that it holds both candles and flowers. It works best in the smaller, more shallow type, containers. Although the photograph is self explanatory, keep this in mind: The thinner the clay walls, the less clay in the center of the piece, the fewer the drying and firing problems. So work out a procedure aimed at eliminating thick, heavy masses of clay.

You may wish to make a "pinch pot" for your basic shape, but remember to leave extra clay in the bottom to support the flowers. When the piece becomes hard enough to hold its shape, invert it and put in the holes. The position and angle of the holes will determine the position of the flowers in the final arrangement, so keep this in mind when making the holes. Holes can be made by inserting a stick in the clay and twisting it; or if the clay is too hard for this, "drill" the holes with a thin-bladed knife. The holes should be deep enough to lend support for the stems of the flowers. Then make two or more large holes for the candles.

You could, of course, work with a solid mass of clay too. When the piece is leather hard, carve out the underside; then make holes for the flowers and candles. When using a solid mass, you may wish to add grog to the clay to cut down on drying and firing hazards.

The completed frog may be left as bisque, or it can be glazed. Use your own judgment. Since this type frog seldom shows, decorative effect is not required.

The second basic type of frog is designed for larger, deeper bowls. It is a more versatile holder than the first, since you can change the number of candles, their positions and heights. Generally, this type of holder is too big to make from a solid piece of clay. Its domed top and flat bottom suggest a hollow piece instead. The bottom of this holder is unique. It has "matching holes," lined up with the holes in the dome, which hold the bottom ends of the stems securely so the flowers stay put.

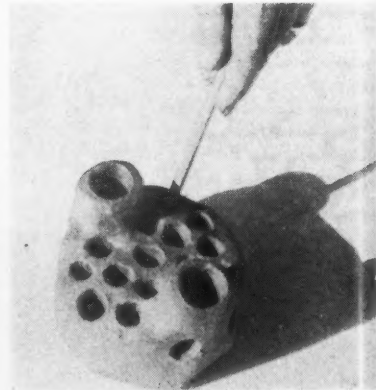
The dome can be made in any number of ways. The easiest is to use a forming aid or a hump mold of some sort. Here are a few ideas—a light bulb, orange, grapefruit, or any round object—depending on size. Incidentally, the waxy surface of the fruit aids in releasing the clay. You also can use the rounded insides of shapes, such as salad bowls, for forming the dome.

Relatively thick walls make grogged clay desirable in this type of frog.

The "sticks" for the candles have no holes. The candles are attached to them with melted wax. This gives a decided advantage since it enables you to use candles of any diameter—from short, stubby candles to long, slender tapers—in your arrangements. For even more versatility, make several sets of sticks of different lengths, and different colors.

You probably will want to glaze this type of holder since it will be visible in the final floral arrangement.

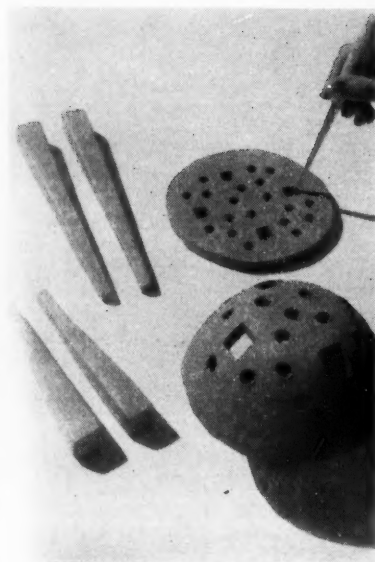
Now that you see how it's done, you probably have dozens of your own ideas. So get out your flower containers—all shapes, sizes, and colors—and plan various combination frogs for them. When the first flowers appear this spring, you'll be ready. ●



THIS TYPE OF FROG works best in smaller, more shallow containers. To cut down on drying and firing problems, try to eliminate thick, heavy masses of clay. The photograph above shows how this type frog is made.

ay way

Frustrated
centerpiece arrangers
will welcome
this idea for a
ceramic "frog"
designed to hold
both flowers and
candles



A MORE VERSATILE FROG, this type is designed for larger, deeper bowls. The number of candles, their positions and heights can be changed. Notice, in the photo at far left, how the bottom section of the holder has "matching holes" lined up with the holes in the dome. These hold the flowers securely so they stay where they are placed. The picture opposite shows how the candleholders are held in position.

demonstrated

by MARC BELLAIRE



ONLY THREE COLORS—brown, light tan and black—were used in this unusual repeat design. The background was left white. A matt glaze was used on the finished piece. Carefully dividing the shape to be decorated into equal sections is the key to successful repeat motifs.

DECORATE with UNDERGLAZES

A Repeat Motif

for the
HOBBY DECORATOR

REPEAT DESIGNS always are popular, and this month Marc Bellaire demonstrates a rather unique repeat motif which breaks away from the usual geometric patterns and "borders" usually associated with this type of design.

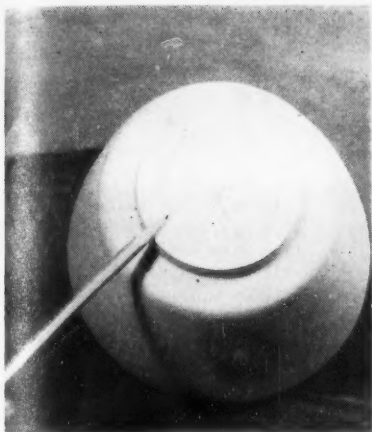
The demonstration piece is a jardiniere, or "pot jacket," which is designed to fit over an ordinary flower pot. It serves two functions since it not only protects the surface on which it stands, but it also plays an important role in "dressing up" an otherwise plain flower pot.

It is important when executing a repeat design that you plan the number of "repeats" beforehand, especially in an alternating motif like this one. Otherwise, you might find, on completing the design, that you have two identical figures adjacent to each other. To prevent this, it is best to divide the shape in much the same manner as you would cut a pie. First, mark the bottom of the jardiniere with pencil, then extend the lines so they will be visible at the base of the pot. Now, instead of having one massive surface to decorate, you have eight smaller

sections. Using the short vertical lines at the base of the piece for guides, sketch in the design lightly with a blunt pencil. Be careful not to press too heavily on the pencil since you will gouge the green ware, and the lines will show up in the finished piece.

Only three colors were used on this piece—brown, light tan and black. Touches of sgraffito were used to decorate the clothing of the figures, and the background was left white. First the heads of the figures were brushed on, using brown and light tan underglazes alternately. The clothing was put in next with black underglaze, as were the hats and hair. Black also was used to band the bottom and top of the jardiniere to help contain the design within the shape. Then the inside of the jardiniere was sponged with black underglaze. Facial details were put in with black and, as a finishing touch, the sgraffito tool was used to spark up the clothing.

The piece then was bisque fired and later glazed with a matt glaze and refired. For step-by-step instructions, follow the how-to-do-it photographs on the facing page. •



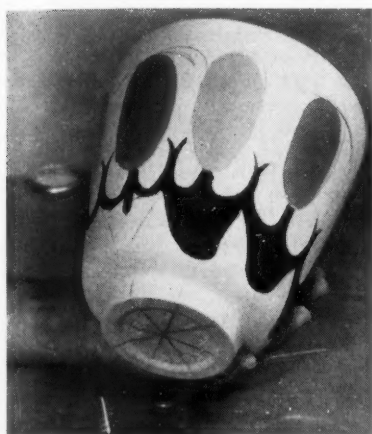
1. Divide the bottom of the green ware shape into equal parts. Then extend the lines around the base.



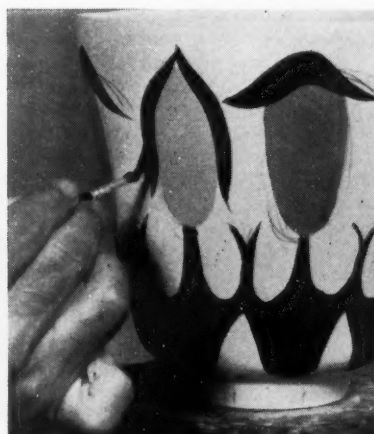
2. Next, sketch in the design lightly with pencil, using the lines for guides in placing the figures.



3. With brown and light tan underglaze, put in the oval-shaped heads, alternating the colors.



4. Black underglaze is used for clothing. Notice how the guide lines determine where figures are placed.



5. Hats and hair are put in with black underglaze. Hats go on the brown heads; hair on the tan ones.



6. The base of the pot is banded in black. A black border on top also helps contain the design in the shape.



7. A sponge, dipped in black underglaze, is used to cover the inside of the jardiniere.



8. Black facial details and sgraffito decorations on the clothing add the finishing touches to the piece.

In this series of articles, no specific brand of underglaze is either suggested or implied. The national brands are highly competitive in quality and price. Mr. Bellaire's advice is to use those brands you feel give you the best results.

Strictly Stoneware

... stoneware clay bodies: part three

by F. CARLTON BALL



Continuing his series from where he left off last month, Mr. Ball gives some suggested recipes for stoneware clay bodies for the Middle West and Eastern sections of the country. He also lists the sources of supply for some of the materials mentioned in the recipes. Next month, Mr. Ball will continue his current series and his column will feature recipes for clay bodies designed for the Pacific Northwest.—Ed.

If a potter wants a body rather fine in texture, but one that would throw extremely better than either, a good plastic fire clay or a ball clay would be his starting point.

Some suggested mixtures for the Middle West:

Clay Body A

	per cent
Monmouth Clay	40
XX Sagger Clay	50
Flint	10

Clay Body B

	per cent
Monmouth Clay	30
XX Sagger Clay	30
Flint	15
E.P.K. Clay	25

Clay Body C

	per cent
Monmouth Clay	40
Flint	10
Cedar Heights Red Clay	15
Grog	15
Feldspar	5
A.P. Green Flint Fire Clay	15

Clay Body D

	per cent
Monmouth Clay	35
Flint	10
E.P.K. Clay	10
Grog	15
Feldspar	10
A.P. Green Flint Fire Clay	20

Clay Body E

	per cent
Flint	15
Grog	15
A.P. Green Flint Fire Clay	20
A.P. Green Mortar Mix	10
Kentucky Ball Clay	40

Clay Body F

	per cent
Flint	10
Grog	15
Feldspar	10
A.P. Green Flint Fire Clay	10
A.P. Green Mortar Mix	40
Kentucky Ball Clay	15

It would be possible to use from 1 to 5% Bentonite in the clay. Bentonite increases the plasticity of a clay a great deal. It also increases shrinkage and warping and is rather difficult to mix into a body. It should be screened into other clays, dry, before it is moistened with water.

There are some natural stoneware clays that are excellent as they are. They can be improved upon, of course, by adding some other materials. For the Middle Western States, the stoneware clay known as "Monmouth Clay" is excellent for cone 6 to 11 firing. This clay, also called Wentko Clay, comes from the Western Stoneware Co., Monmouth, Illinois.

Another excellent stoneware clay, very much like the Monmouth clay, is Buff Stoneware Clay from the American Art Clay Co., Indianapolis, Indiana.

Further east, the buff stoneware clay similar to the two just mentioned is Jordan clay. This is an old reliable stoneware clay of excellent quality.

In the South, a very good light buff stoneware clay, moist or dry, now is available. Called St. Hedwig Stoneware Modeling Clay, it is available from Hood Warehouse Co. San Antonio, Texas. This is the clay used by the great Texas potter, Harding Black.

The A.P. Green fire clay that is used as a mortar mix is available in many building supply stores. It is a good clay upon which to build a stoneware body. This clay is easily available to Midwestern and Western potters.

The Lincoln Fire Clay, "Green Stripe," is a good California plastic fire clay mined by Gladding McBean Co., Los Angeles, Calif. It also is used as a mortar mix and is easily available in building supply stores in the Western and Northwestern United States.

The Southeastern part of the country has many clay mines, brick and

pottery plants, or old abandoned clay mines so it is quite easy for a potter to locate a good source of supply.

The clays available to a potter commercially number in the hundreds. I am acquainted with only a few of the most easily available ones. I wish I could mention more kinds of clay.

Here are some stoneware bodies designed for the Eastern United States:

Clay Body #1

	per cent
Perine Stoneware Clay	40
XX Sagger Clay	30
English Ball Clay	8
Flint	10
Feldspar	12

Clay Body #2

	per cent
Jordan Clay	20
Kentucky Ball Clay	24
Dalton Clay (Red)	10
No. American Fire Clay	14
Flint	16
Grog	16

Clay Body #3

	per cent
Jordan Clay	40
Kentucky Ball Clay	15
No. American Fire Clay	25
Flint	10
Feldspar	10

Clay Body #4

	per cent
Jordan Clay	20
Kentucky Ball Clay	5
Dalton Clay (Red)	30
No. American Fire Clay	20
Flint	15
Grog	10

Clay Body #5

	per cent
Perine Stoneware Clay	40
Kentucky Ball Clay	15
No. American Fire Clay	25
Flint	15
Feldspar	5

Clay Body #6

	per cent
Jordan Clay	20
Kentucky Ball Clay	15
Dalton Clay (Red)	20
No. American Fire Clay	30
Flint	15

(To be continued!)

*Three potters subject clay
to stresses of sharply changing form
and demands of powerful dimension in a*

New age of EXPERIMENT

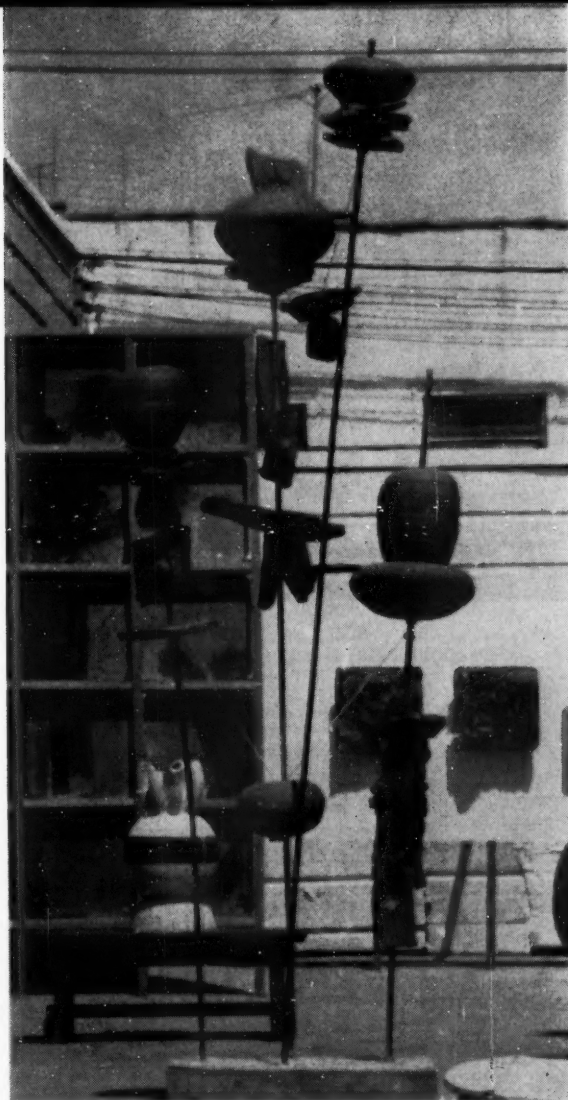
by JERRY ROTHMAN

IN THE YEAR 1958, we live in an age of expanding research and experiment into heretofore unknown realms. In arts like painting and sculpture the search and experiment has been in the direction of new materials and techniques and much more important in the direction of more powerful self-communication.

Why is this intense drive for self-expression not prevalent in that branch of the arts designated as the crafts?

In this country many of the crafts including ceramics are guilty of ancestor worship. Tradition and dexterity have become ends in themselves. That this need not be so was evident at the Ferus Gallery in Los Angeles last summer where three potters, John Mason, Jerry Rothman and Paul Soldner demonstrated that the traditions of ceramics can be the basis of new forms that relate to the world in which we live. Their handling of clay is forceful and direct. Strong feeling is expressed through hands which subject the clay to stresses of sharply changing form and the demands of powerful dimensions. Brush work is bold and vigorous, yet it is an integral part of the sculptural form.

(Continued on page 32)



TREE-LIKE shapes on metal
rods by Jerry Rothman.



END POTS by Paul Soldner;
center pot by John Mason;
others by Jerry Rothman.



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Itinerary

Send show announcements early—WHERE
TO SHOW: three months ahead of entry
date; WHERE TO GO: at least six weeks
before opening.

WHERE TO SHOW

★national competition

CONNECTICUT, NORWICH

March 9-23

The 15th Annual Exhibit for Connecti-
cut artists at the Converse Art Gallery.
Sculpture included in media. Jury,
prizes. Fee: \$3. Work due March 1-2.
For additional information, contact Joseph
P. Gualtieri, 120 Platt Ave., Nor-
wich.

FLORIDA, CORAL GABLES

March 20-April 20

★"Sixth Annual Miami National Ceramic
Exhibition," sponsored by the Ceramic
League of Miami, at the Joe and Emily
Lowe Art Gallery, University of Miami,
Coral Gables. Fee: \$3. Deadline: Febru-
ary 24. For further information and entry
blanks, write to the Lowe Gallery. Select-
ed pieces will be circulated by the Smith-
sonian Institution.

KANSAS, WICHITA

April 12-May 19

★"Thirteenth Decorative Arts-Ceramic
Exhibition" of the Wichita Art Associa-
tion. Open to all American craftsmen
in ceramics, ceramic sculpture, enamel,
and mosaics as well as textiles, silver-
smithing, jewelry and metalry, wood
sculpture, garden sculpture and hand
wrought glass. \$2,000 in cash prizes,
purchase and special awards. Jury, \$3
entrance fee. For details, contact Maude
G. Schollenberger, Wichita Art Associa-
tion, 401 North Belmont Ave.

LOUISIANA, NEW ORLEANS

March 9-30

The 57th Annual Spring Competition
for members of the Art Association of
New Orleans at the Isaac Delgado Mu-
seum of Art. Sculpture included in
media. Fee: \$5 membership. Jury, cash
prizes. Work due February 20. For de-
tails, write to the museum, Lelong Ave.,
City Park, New Orleans 19.

MASSACHUSETTS, SPRINGFIELD

March 9-April 6

★The 39th Annual Exhibit of the
Springfield Art League at the George
Walter Vincent Smith Art Museum.
Open to all American artists, media in-
cludes sculpture. Jury, prizes. Fee: \$4.
Entry cards and work due February 26.
For additional details, write Harriet
Richard, 109 Caseland St., Springfield.

MASSACHUSETTS, SPRINGFIELD

March 16-April 13

★National Exhibition of the Academic
Artists Association at the Springfield
Museum of Fine Arts. All living tradi-
tional artists eligible. Sculpture included
in media. Jury, prizes. Fee: \$4. Entry
cards and work due March 4. Details
obtainable from Mrs. Mary L. Keefe,
75 Berkshire St., Indian Orchard, Mass.

NEW YORK, DOUGLSTON

May 17-31

★The 28th Annual Spring Exhibition of
the Art League of Long Island. Ceram-

ics and sculpture included in media.
Jury, prizes. Fee: \$5. Entry cards and
work due April 25-26. For details, write
Edith Brandenberg, chairman, Art
League of Long Island, Inc., 44-21
Douglaston Pkwy., Douglaston, L. I.

NEW YORK, SYRACUSE

March 15-April 6

The 6th Regional Art Exhibit at the
Syracuse Museum of Fine Arts. Spon-
sored by the museum, the exhibit is open
to artists residing within a 90-mile radius
of Syracuse. Sculpture and crafts are in-
cluded in the media. Entry cards and
work are due in February. Contact John
Rutter, Syracuse Museum, 407 James
St., Syracuse 3.

WASHINGTON, SEATTLE

March 9-April 9

Craftsmen of Washington, Oregon, Mon-
tana, Idaho, British Columbia and Alas-
ka are eligible for the Sixth Annual
Northwest Craftsmen's Exhibition to be
held at the Henry Gallery, University
of Washington. Separate juries will
select entries for exhibition and award
prizes in four classes, including ceram-
ics, ceramic sculpture, enamels and
mosaics. Local work due February 7-8;
out-of-town work, February 8. Detailed
rules and entry blanks available from
the Henry Gallery, University of Wash-
ington, Seattle 5.

WHERE TO GO

FLORIDA, PENSACOLA

January 5-February 15

"Italian Arts and Crafts," a Smithsonian
Institution Traveling Exhibition, at the
Pensacola Art Center.

KANSAS, TOPEKA

February 2-23

"American Craftsmen, 1957," circulated
by the Smithsonian Institution Traveling
Exhibition Service, at the Mulvane Art
Center.

OHIO, YELLOW SPRINGS

through February 9

"Midwest Designer-Craftsmen," at the
Kettering Library of Antioch College. A
Smithsonian Institution Traveling Ex-
hibition.

PENNSYLVANIA, PHILADELPHIA

February 6-March 2

An exhibition of the work of three con-
temporary Chinese potters at the Phila-
delphia Art Alliance, 251 South 18th St.

PENNSYLVANIA, PHILADELPHIA

March 6-30

An exhibition of enamels by Oppi Un-
tracht, Karl Drerup, Doris Hall, and
Kalman Kubinyi at the Philadelphia Art
Alliance, 251 South 18th St.

TENNESSEE, CHATTANOOGA

February 23-March 16

"Twelve Scandinavian Designers," pre-
sented in cooperation with the Smith-
sonian Institution Traveling Exhibition
Service, at the George Thomas Hunter
Gallery of Art.

TENNESSEE, KNOXVILLE

March 9-27

"Italian Arts and Crafts," circulated by
the Smithsonian Institution Traveling
Exhibition Service, at the University of
Tennessee.

TEXAS, ABILENE

February 23-March 16

"Midwest Designer-Craftsmen," a Smith-
sonian Institution Traveling Exhibition,
at the Abilene Fine Arts Museum.

...Q *Answers to* Questions

(Continued from page 11)

bon so some material (such as asphaltum) must be burned in the kiln. The smallest period of time that this smoke must be present is between cones 3 and 5. If there is enough smoke to be effective, the soot or carbon builds up a layer on the inside of the kiln. This carbon is a conductor of electricity so it sets up a short between the elements. The elements will burn out and burn a small hole partially into the face of the refractory brick.

Small quantities of smoke can be used in an electric kiln for the development of lustres.

Perhaps glazes are enhanced by a reduction atmosphere. I feel that a reduction atmosphere enhances the quality of the clay, and the glazes appear better over clay which is fired in reduction. It depends upon what you want and what you think is beautiful. This is the same as asking whether I think earthenware or stoneware is superior. Each has its inherent qualities; each can be beautiful. It depends upon what your idea of beauty is and it depends upon what your objective is.

A glaze cannot be beautiful by itself. When a good glaze is put on the right clay, shaped correctly for the function of the piece, and the right type of clay and glaze is used (the right color, thickness, finish, etc.); the more perfect the balance of elements, the more beautiful the finished piece will be. It can stand on its own merits, and it won't matter whether it was fired in reduction, low fire or high fire.

If you wish to fire glazes in a reduction atmosphere, then feldspathic glazes are best. I know of only four or five of these glazes that fire as low as cone 5. It's best to fire to cone 7 for a reduction atmosphere, and feldspathic glazes firing to cone 7, 8, 9 or 10 will work well. Glazes with a high lead content will not work well.—F. CARLTON BALL

Q One of the questions in the August, 1957 issue stated that findings were being torn off the clay body, taking the body with them, instead of the glue failing. This sounds like a fantastic glue. Do you know its name?

The glue used, according to the user (from Toledo), was *All Purpose Adhesive—Jewelry Adhesive*. This was obtained from Bergen Arts and Crafts, 300 S.W. 17th Ave., Miami, Fla.—CM STAFF

Q What colorant is available to darken a stoneware slip to either gray or light brown? How much of it should I use? Am I right in saying that Barnard, Dalton, iron oxide and manganese are out because they are of mineral extraction (or contain iron) which would destroy the deflocculant quality of sodium silicate or other deflocculants?

Any of the materials you mentioned will be satisfactory for darkening a stoneware clay. None of them will destroy the deflocculant. Excess iron may cause a slip to gel, although you wouldn't be adding enough as a colorant to create any problem.—KEN SMITH

All subscriber inquiries are given individual attention at CM; and, out of the many received, those of general interest are selected for answer in this column. Direct your inquiries to the Questions Editor; please enclose a stamped self-addressed envelope.



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Celadons

(Continued from page 18)

have a colorless background to emphasize the celadon colors.

For best results in these glazes, the colorant, reducing agent and bone ash (which also contributes to the color and opacity) are milled together wet in a ball mill for several hours and then dried. (The mix also can be hand ground with a mortar and pestle, but the results are not as fine as by the longer method.) This mixture, which I refer to as *reduction mix*, is added to the glaze batch and the entire mixture is screened. The glaze is applied heavily to bisque pots.

For convenience, a larger batch of the reduction mix can be milled in advance, then dried and saved for use at any time. The reduction mix has the following recipe:

Reduction Mix

	per cent
Silicon carbide (very fine grit)*	9.1
Ferro-ferric oxide (Fe ₂ O ₃)	45.5
Bone ash	45.4

*The silicon carbide used should be of fine grain size. That designated as FFF is sufficiently fine. It is sold in hardware stores as an abrasive powder.

The glaze recipes below mature at cone 04. The resulting colors are based on an eight-hour firing schedule in an electric kiln. For the clay, it is suggested you try any kaolin or china clay. The glazes should be applied quite heavily.

Glaze C-3—Soft green over striations of opalescent blue

	per cent
Frit: Ferro 3134 or O. Hommel 242	49.57
Frit: Ferro 3396 or O. Hommel 648	11.25
Kaolin	25.35
Flint	13.83
	100.0
Reduction Mix	3.3

Mosaics

(Continued from page 19)

the tiles. Try to keep it uniform. Don't be too generous with the space, or not generous enough. If you are, you'll have a space problem when the final pieces are set in.

To avoid difficulties, it is wise to sketch the exact size and shape of your table top on paper. Next, set in the tiles. Then you can work out color arrangements, spacing, and make sure you have enough tiles to complete the job.

Spreading a level application of

Glaze C-4E—Dull green, semi-opaque, slightly mottled

	per cent
Frit: Ferro 3134 or Hommel 242	40.6
Frit: Ferro 3396 or Hommel 648	9.4
Kaolin	31.3
Flint	18.7
	100.0
Reduction Mix	3.3

Glaze C-8—Opaque light blue, striations of glossy green

	per cent
Frit: Ferro 3134 or O. Hommel 242	57.07
Frit: Ferro 3396 or O. Hommel 648	9.4
Kaolin	25.35
Flint	13.83
	100.00
Reduction Mix	3.3

Glaze 1-Zn—Soft olive green

	per cent
White Lead	5.9
Frit: Ferro 3191 or O. Hommel 542	49.5
Whiting	.9
Zinc oxide	4.7
Kaolin	25.5
Flint	13.5
	100.0
Reduction Mix	3.3

Varying effects may be obtained by using lighter and heavier coats of the glaze, by using one celadon glaze over another (all combinations are good), by varying the type of kiln (gas or electric), the firing time or the amount of heat. Many of the decoration techniques work very well with the celadon glazes.

You may wish to prepare a batch of the reduction mix to try with the glazes you now are using, to see whether or not they will make celadon glazes. ●

mastic on the surface of the table is the first step. *Marine* plywood, about 5/8" thick, generally is considered best for the base. It is particularly durable, especially if the table is to be used outdoors. If you are applying mosaics to an old or marred table, be sure to make it moisture resistant first by applying two coats of water proofing.

The amount of surface you cover with mastic depends upon how quickly you can work, and how fast the mastic sets. A rather slow-setting mastic, such as a four-hour type ceramic

(Continued on page 36)

... Suggestions

(Continued from page 9)

leaves. Slip one hand under the oilcloth and the clay pieces peel off easily.

If you use white clay, a dark green underglaze on the underside of the leaves eliminates the need for glazing there, making tilting unnecessary and resulting in less breakage of leaves.

When veining leaves in wet clay, a sharp-pointed tool cuts the clay leaving sharp crumbly edges which weaken



the leaves and cause a sharp edge after glazing. To eliminate these faults, try a sgraffito tool used upside down, and drag it along the veins. It will produce a good dent without any raw edges.

Transparent colored glazes are not heavy-looking and produce beautiful life-like flowers. Green rutile glaze on leaves and pale-pink transparent glaze on roses are a good combination. Green transparent glaze settles in veins, giving a nice shaded effect on leaves.

—Mrs. E. Quillan, Anacortes, Wash.

For a Golden Effect

Many enamelists who have used silver foil also desire to use gold foil which, in addition to being more expensive, is not too easily found.

I have found that tea-rose-pink enamel, over silver foil gives a golden effect. This is especially attractive if a black background coat is used. The silver foil design is fired in, then the transparent tea-rose-pink enamel is used as the final coat.

—Peg Townsend, Tucson, Ariz.

Center Finder

Here is a gadget that has been quite helpful in my classes. Take two metal strips between six and nine inches long and 1/2-inch wide, and rivet them together at the exact center. This device, when opened to form a cross, helps me to find the exact center of lids, etc. I have found this



especially useful when my students do not make perfectly round lids or bowls. It also is collapsable and can be easily stored with other tools.

—Anita Nelson, New York, N.Y.

Mosaic Tile Press Mold

I find one of the most tedious parts of making mosaic tiles is marking off the tiny squares in the clay. I have solved this problem for myself, and think others might also benefit from this idea.

On a damp piece of heavy cloth (sheeting), I roll out a ball of clay to a rectangle about 9"x12"x5/16." I mark this off very carefully in 1/4" squares, using a blunt tool so smooth lines are formed. After an hour, when the body is a little stiffer, I retrace all the lines to a depth of 1/8." Next, after making a dam completely around the form, I pour plaster into it (about 1" deep). When the form is

(Continued on page 31)

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AMONG OUR AUTHORS:



■ **Jerry Rothman**, a newcomer to the pages of CM, is a cabinetmaker by trade. He was born in Brooklyn, N.Y. in 1933, and attended Brooklyn public schools until he was 12. Then he moved to Los Angeles. When he was 16, he began working as a cabinetmaker's apprentice and, at 20, he became a cabinetmaker. He attended Los Angeles City College and took two units of ceramics in his last semester. Then he attended the Art Center School at Los Angeles and also the Los Angeles County Art Institute.

His show honors include honorable mentions at the Miami National Ceramic Exhibition in 1956, and the 1956 Scripps College Invitational. Last year, his work, together with that of John Mason and Paul Soldner, was part of a three-man show at the Ferus Gallery in Los Angeles.

"An artist must find himself as an individual, then lose himself in work, dedication and ideals larger and more enduring than he," says **Paul Soldner**, assistant professor of ceramics at Scripps College, Claremont, Calif. "This desire to be an individual in an age of conformity is not easily understood by all people, yet the artist-potter has chosen his arduous, simple life simply because he believes it to be better than that which offers only material comfort and popular approval."

Mr. Soldner, who won the Beaux Arts Purchase Award, the top prize in the Fifth Miami National Ceramic Exhibition, also stated, "Unfortunately,

ly, too few pieces of art today reflect the conviction, individuality and integrity of the dedicated artist. There is too little tough, personal evaluation. Art, like politics, can also grow fat and soft. There are too few examples of zealous investigation and too little evidence of originality. There are too many occurrences of the novel, that is, being different to be different. There are too many examples of the trite, the cute and meaningless. There is too much of the imitative which shows a lack of conviction to be oneself."

For a number of years, **John Mason** has been combining the dual roles of industrial designer and studio potter.



His ceramic designs include dinnerware, lamp bases, ash trays and planters. Although his dinnerware designs may be seen throughout the United States, his pottery is relatively unknown

outside the West Coast. There it has been seen in one-man shows in San Francisco, Portland and Los Angeles.

In speaking of his work, **Mr. Mason** says that it "has been characterized by a searching interest in the sculptural possibilities of pottery. The original forms have been altered and the resulting shapes present new challenges in decoration. This three-year-old direction has met opposing reactions. Some feel that the pots' original form has been violated and that it should have retained its symmetrical shape. Others see new forms, another concept of pottery and the possible release from the limitations of the potter's wheel."

In 1957, **Mr. Mason** won the first prize in ceramics at the Fifth Miami National Ceramic Exhibition.

STUDENT SHOW: The recent annual student show at the Greenwich House Pottery in New York City recognized the work of several students by presenting them with honorary awards. The students honored were **Alice Gundelfinger**, New York City, best stoneware pot; **Thea Petschek**, Scarsdale, N. Y., best earthenware pot; **Mae Nixon**, New York City, best hand-built pot; **Hilda Niedelman**, New York

(Continued on page 32)

... Suggestions

(Continued from page 29)

hot, it is removed and trued further. This I use as an up-side down press mold.

I find when I use a damp cloth to roll out the clay, I can move it more easily to a plaster bat (cloth against bat). And, when I tuck the sides underneath, it holds the



clay flat while drying. I then press the mold into the clay. If pressed too hard, the tiles will have a rounded surface. They may be lightly rolled to correct this.

These slabs may be glazed and fired in one piece. Later they can be easily broken with nippers as needed.

—Mrs. Harlan A. Johnson, Reno, Nevada

Glazing Short Cut

When glazing the inside of a piece by pouring the glaze in and out of the ware, so much moisture is absorbed into the bisque that it isn't possible to glaze the outside of the piece immediately without danger of "water-logging" the piece.

During a class period, the necessary waiting can be inconvenient, so I allow my students to glaze the *inside* of ware in the green ware stage. For more than two years, we have had no loss due to breakage while using this method.

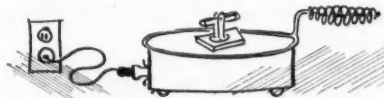
The moisture, impurities and gases escape through the unglazed side of the ware during the bisque firing. The outside of the ware can be glazed with a minimum of lost time. Another advantage of this system is that the piece can be tested to see if bare spots and pinholes on the inside prevent it from being waterproof. If defects are present, they can be remedied, avoiding the necessity for a third, corrective, firing.

—Magda A. Larson, Davenport, Ia.

Soldering Aid

Customers who own hobby-type enameling kilns continually ask how to solder cuff links or other findings to the copper pieces after they have been enameled. Sheet asbestos or small stove pads which have a handle on one side are very handy for this purpose. They are available in most hardware stores.

Set the asbestos over the open element kiln. Then place the cleaned copper pieces—enameled side down—with solder and finding in the correct place on the asbestos pad.



When the solder has melted, remove the pad from the kiln and set it aside to cool. This idea also may be used with the closed element kilns, or with any kiln where the heat source is at the bottom only.

—Peg Townsend, Tucson, Ariz.

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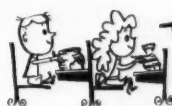
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SO REVIEW some of the classroom capers you now take for granted and plan to share them with others. As Longfellow once said: "Give what you have. To someone it may mean more than you dare think." What he didn't add (but we will), "You can earn \$10 while you're at it!"

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ABOUT 4½ FEET TALL, this roughly textured sculpture by Hilda Niedelman is made from brown grogged clay, decorated with colored oxides.

Ceram-Activities

(Continued from page 30)

City, and Margaret Chohany-Scully, Long Island City, N. Y., best sculpture.

The purpose of the awards was to stimulate student participation and develop standards of craftsmanship and originality. No cash awards were given. The show was open to all students and former students and members of the Greenwich House Potters group. Although 80 persons exhibited examples of their work, only the students' pieces were judged.

Experiment

(Continued from page 25)

JOHN MASON uses the wheel only to arrive at a form of desired volume. He then pushes, cuts and scrapes the clay into a completely new pottery form. The plastic quality of the clay records the feelings of the artist as intensely as the classical pot of T'ang Dynasty reveals its static beauty. Perhaps one of the most striking aspects of Mason's work is the way in which he integrates glaze with form and clay. Bright glazes contrast with areas of exposed clay to create surfaces which become an essential part of his spatial forms.

Mason's large architectural murals employ glazes and underglazes to create a sensitive, subtle blending of Zen calm and western expressionism. In his bas reliefs, he achieves forms and shadows possible only with clay. They are at the same time sculptures and paintings.

JERRY ROTHMAN's work differs in



WHEEL THROWN as a bowl, the sides of Alice Gundelfinger's 5" pot were bent in and welded together.

NEW WING TO OPEN: The Cleveland Museum of Art, according to Director William M. Milliken, will officially open its nine million dollar new wing with a ribbon cutting ceremony for Museum members on March 4. The addition will more than double the Museum's present size and will afford a much greater exhibition area and educational capacity.

The exterior of the Museum, even the planting in its essential features, practically is completed. And the interior of the new wing is almost ready with installations already underway.

SOUTH AMERICAN REPORT: An exhibition representing the work of 35 young women, students of the School of Ceramics of El Colegio Mayor de Cundinamarca, recently has attracted throngs of visitors in Bogota, Colombia.

Included in the current exhibition

(Continued on page 34)

his interest in structural organization and mechanical forms. It is obvious that he is as interested in the mechanical interrelationship of objects as well as in their structure and aesthetic efforts. The work of this comparative newcomer to the field of ceramics ranges from sculptures and pots, small in size to sculptures and pots of monumental size. He strongly prefers forms that stand self-contained and undorned. Decorated ceramic "pot-structures" are rarely found in his work.

His pot forms are derived originally from the wheel. Then while they are still wet, he works into the fresh clay, textures and overall patterns which give the pot a strong organic quality. For the most part the sculpture Rothman shows, displays the same organic quality together with a very strong structural or architectural character that seems to relate closely to plant or tree-like shapes. The large structures are a combination of ceram-

(Continued on page 34)



the ENAMELER'S COLUMN

by *Kathe Berl*

LIGHT GAUGE COPPER FOR ENAMELING

What gauge copper should be used for enameling? This is a question I am often asked. Usually the answer I give is 18 to 20 gauge for larger utility objects, such as trays and box tops and such, and 24 to 26 gauge for jewelry. When it comes to 26, I see some expressions of surprise, "Doesn't the enamel chip on such thin metal?" I am asked. Actually, the enamel does not chip more, but much less than on the 18 gauge copper which most enamelists use.

The 18 gauge idea comes from the commercial blanks which are used so widely. They are heavy gauge and are not made for counterenameling. Enamel jewelry should really be jewelry. Not only is it supposed to be carefully done to the best of our ability and a piece one can treasure for its artistic quality; but it also has to have a certain physical quality. Counterenameled and all, it cannot weigh a ton. It has to be light weight. A pin should not be so heavy that it pulls holes in delicate fabrics. Earrings of any size should not feel heavy, even when worn for long hours. Neither are they to pull down the ear lobes of a fair lady.

Enamel is glass, and glass is heavy by itself. The copper base should not add too much to the heaviness of the enamel. Luckily, we can avoid heavy metal bases. Have you ever held a piece of antique jewelry in your hand? Or have you ever held an old Limoge plaque? If you have, you probably were surprised about the light weight of these objects, and wondered how it came about.

Before enamel became more or less a novelty—a gift shop article—people knew the requirements for fine articles. They also realized that enamel does not chip more on light weight copper. The opposite is true. My experience is, with all the expansions and contractions constantly going on in temperature changes, the enamel stays fused to light metal much better than to a heavy base.

The 24 to 26 gauge copper works fine for all enamel jewelry and all enamel and metal combinations (set-

tings); but much lighter, paper thin, copper can be used for enamels that are to be set in metal or other settings that hold the enamel and prevent it from being bent by accident. I have also done, and successfully too, three dimensional figures in the round from that foil-like copper. They are holding their own and, if they are not to meet with a terrible accident and die, they will live on ever after (not that I think that the world could not go on without them).

Thin, paper thin, copper bases have to be domed and shaped properly before they are enameled. This type copper does not need much hammering. We can shape it on a semi-soft surface—for example, the now notorious telephone book—with the help of the grip of a pair of scissors. I described this technique in my article on how to make lettering for signs (April 1957) or whatever the title of that column was. Doming gives the piece strength.

There also are other ways to achieve strength and, at the same time, get a nice and novel effect. With a dull-pointed instrument, press out — on the famous semi-hard surface—raised designs, sort of a line drawing repousse. If the field between the line is wet inlaid with other enamel colors, the effect is cloisonné-like without the *dis-adventure* of the effect of a fake cloisonné. It is a technique of its own.

In case you want to make a three dimensional figure, and . . . By the way, I want to tell you that I saw a little angel in the home of one of my acquaintances that was made by a reader of this column from the idea given in these pages with a few new ideas added. It was very nice and I was pleased, indeed, to see it. Well to come back to the three dimensional figure, give it some stratigically placed bends to give it strength. For example, if it is to be a cone-shaped something, press out a line around the base; and, if the object is to be tall, also some lines or bends from the base up to the point. Or, if it is

(Continued on page 36)



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Ceram-Activities

(Continued from page 32)

are sculptures, lamps, ornamental plates, plaques, masks, pitchers, ewers, ash trays and centerpieces. Representing both classic and modern design in form and decoration, the works in the exhibit also reflect the influence of the art of the Chibcha Indian culture of Colombia.

The college, which is run by the National Ministry of Education, is a women's school which ranks somewhere between senior high and junior college. The creators of the 350 objects in the exhibit range in age from 14 to the early twenties.

The curriculum of the school includes the history of art, drawing and design, modeling, wheel throwing, enameling, making molds, and the technique of operating a kiln. The first two years of the ceramics course is devoted to classroom work; the last year entirely to practice.



CARMEN INEZ MENDOZA holds her Chibcha Indian mask, one of the major pieces from the recent South American exhibit.



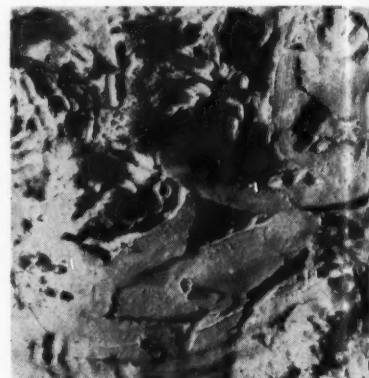
JANA ALLINA exhibits three of her ceramics which show the influence of the modern trend in design.

Experiment

(Continued from page 32)

ic shapes and metal rods. They are planned so that the entire assembly moves easily and gracefully with the breeze.

PAUL SOLDNER, now teaching at the Claremont Colleges, employs



TILE BY MASON achieves forms and shadows possible only with clay.

height. His pots, which are up to seven feet tall, develop concepts of volume relationship which have startling originality and freshness. His pots unlike those of Mason and Rothman retain the symmetry created by the wheel. Soldner uses a broad, flat brush with bold, free feeling to enhance the strong forms contained in his work.

Mason, Rothman and Soldner demonstrate that building on the wisdom of the past but expressing honestly and directly their own personality in their work is an answer to the challenge of to-day's world. ●

Eckhardt

(Continued from page 15)

won't warp, may be used in place of the board.

Since the invention of the plastic bag, storage is a cinch. We used to have quite a time storing an entire roomful of objects. Old-fashioned ice boxes, garbage cans (new ones, of course), zinc-lined boxes, and large biscuit tins were used in the past. But now we just plop them into a plastic bag (each student brings his own) and that is it. If the plastic bag is stored in a covered tin can or box, the clay stays soft indefinitely. ●

In her next article in this series, Miss Eckhardt will discuss clays, drying and firing. She will reveal some of the methods and techniques she has developed to insure safe drying and firing—even for loosely-built children's work.—Ed.



How to Use LUSTRES

part 4

by ZENA HOLST

Picking up where she left off last month, Mrs. Holst continues her discussion of lustres. —Ed.

Techniques of Coverage

1. **CONSISTENCY:** You have to work quite fast when applying lustres. They dry quickly, and ugly streaks are apt to show in the covering of a large space unless the lustre is exactly the right consistency. It often is necessary to thin the lustre, but not always. Lustres of highest viscosity (a state of non-fluidity) need more thinning than those which are more fluid. The darkest colors usually are of the greatest viscosity.

The degree of thinning needed depends on the method of application and the technique of finishing. Lustres which are syrupy in consistency definitely need thinning. There is a special *essence* for thinning. However, if the lustre does not need much thinning, particularly for small confined areas, a few drops of pure (not synthetic) oil of lavender does just as well. Too much thinning will cause the lustre to spread. Thinning should not be necessary for fine-line designs and banding.

Lustres have a tendency to *crawl*, so allow for it. Two shades of lustre placed side by side will not run together if you allow a thin dividing line for "creeping." Do not overlap colors if two or more are to be blended together with a silk pad.

Learning the proper consistency is a matter of experience and getting acquainted with the colors to know beforehand which need to be patted. Some colors are prettier if they are patted smoothly with a silk pad; others should not be patted. Patting removes much of the iridescent quality in a lustre and should be avoided with the light colors as much as possible. Never pat iridescent tint colors. These usually are the right consistency for application as is. Small designs are not patted either, but are painted on smoothly with a brush, regardless of the color—light or dark.

A color that seems too *intense* in tone can be softened with an *extender*

which is available specifically for that purpose. Do not confuse *extender* with *essence*. The latter (lavender oil) is used merely for thinning the consistency and does not change the color itself. The extender modifies a color in degree, depending on the proportions used—from rose to pink, for instance. White lustre also is good for modifying a color.

2. **LIGHT COLORS:** "Tint" colors which have iridescence (pearl, opal, and marble) need an individual technique in handling. Patting, with a silk pad, removes much of the life and variable quality of these colors. There should be a display of changeableness—a sort of ethereal quality. We see too much lustre decoration that is "dead" looking because of improper application. These colors should *not* be brushed on in long strokes if you want to bring out the play of colors in the iridescence. The mixture of the pigments is pulled together too much if applied in this manner. For instance, mother of pearl will show heavy streaks of yellow, a tone that really is not a part of it. The best way is to "stipple" it on. Do not get the idea that you use a stippling brush. I am speaking of the *motion* only. You use a camel's hair brush for the application.

Do a small area at a time, working outward in a circle from the center of the area to be covered. It should be mottled in appearance. It does not matter if the space is not thoroughly covered for the first firing; uncovered areas can be covered for the second firing. If you cannot use the stippling motion, then use very short, wavy brush strokes. A most haphazard approach and the coarsest looking application will result in the greatest show of iridescence.

A few of the light colors are not durable unless covered with a final coating of pearl or opal. Orange is not durable under most conditions. It needs a protective covering. This also is true of certain brands of yellow and pink. Try to buy these with the pearl or marble properties which are more durable.

(To be continued)

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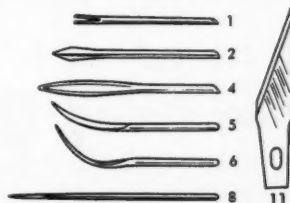
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Mosaics

(Continued from page 28)

tile cement, generally is recommended. This usually is available from your local ceramic supplier (if he carries mosaic materials) or from tile shops. A slow setting mastic also permits you to remove pieces or move them around if you find the design is not coming out as you planned.

The final step is grouting, filling the spaces between the tiles. Use a tough, water-proof grout cement for this. To use this powder, mix it with water to the consistency of rather thin slurry. Sponge down the mosaic and pour water between the tiles. Excess water can be drained off by tilting the table. Then pour grout on the surface, one area at a time.

To make sure the grout penetrates, work it in with a stiff-bristled brush. If it runs off the outside, wrap the table edges with adhesive or masking tape. When the grout has been worked into all the spaces, wipe the excess from the surface with a squeegee or a rubber kidney. When the grout has hardened slightly, wash the tiles clean.

Designing possibilities are not limited to the *design-as-you-go* approach which we have discussed. You also may work out your entire design on paper first, then number the tiles to correspond to your sketch. Specific designs can be created by grouping odd-shaped mosaics according to color; or entire shapes (leaves, animals, flowers, etc.) can be cut from the original clay slab. As you work with these bits of colorful tile, you will discover many more additional ways to convert them into unusual, inexpensive and beautiful designs. •

Enameler's Column

(Continued from page 33)

to be a four-footed animal, give each leg a line from the foot up to the hip so it has good legs to stand on. You can also ball the copper up a little, like the folds in the drapes of baroque figures. The effect of copper used this way is surprising to the on-looker who is accustomed to seeing enamel on heavy, plane surfaces only.

It is a pleasure for the craftsman to work with light gauge copper. It is so easy to cut. A pair of ordinary scissors does the job perfectly. It's so noiseless too. Little or no hammering is involved. And such a beautiful result! That is the main thing, so go ahead and try it out. You'll love it, I am sure. •

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